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Climate Change Governance at Subnational Level:

Key Lessons for Kenya's County Governments

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Climate Change Governance at Subnational Level: Key Lessons for Kenya's County Governments

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Abstract

With the international community struggling to reach an agreement to maintain GHG concentration to safe levels, focus is now shifting to climate governance beyond the international and national level. Sub-national governments provide such a platform for addressing climate change.
The paper explores why subnational units should be on the forefront to tackle climate change, with examples from the states of California and Sao Paulo. The successes and failures experienced by these states provide lessons for Kenyan county governments on how to develop and implement climate change policies. It finally makes recommendations for Kenyan counties based on the lessons from the two states.

Key words: Climate change governance, sub-national governments, Kenya, counties

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1. INTRODUCTION

"Successfully addressing the climate change challenge will only be achieved, and sustained through involvement and commitment at all levels of decision-making. In particular, sub-national authorities (regions, provinces, states or municipalities) have a key role to play in actively incorporating climate change considerations in day-to-day business and in introducing climate-friendly policies, regulations and investment decisions at their level, as a direct outreach to the public."[1]

-United Nations Development Program

With the international community struggling to reach an agreement on binding emission reduction commitments to maintain GHG concentration to safe levels, focus is now shifting to climate change governance beyond international and national level. The ongoing negotiations show that it may be difficult for the international community to agree on an effective climate change regime, and if they do, it may be late. It is doubtful whether the international climate regime will adequately address climate change. This opens up possibility of considering alternative modes of climate change governance that may prove to be more effective and timely. One of such alternatives is tackling climate change at sub-national level.

Sub-national governments play a major role in tacking climate change, even in countries such as the United States (US) which are reluctant to take up international obligations.[2] For instance, the state of California has set up an ambitious emission reduction target of 1990 levels by 2020.[3]

Sub-national governments may be in the form of states, cities, counties and provinces depending on a country's constitutional structure. Apart from the fact that they are closer to the people and have control over sectors that affect and are impacted by climate change, they are flexible and implementing policies and decisions and adopting new structures is faster.[4] They provide a good platform to implement and develop climate change policies and laws.

Kenya recently adopted a devolved system, dividing the country into 47 counties. Its contribution to global

[1] UNDP, *Sub-National Initiatives,* http://www.undp.org/content/undp/en/home/ourwork/environmentandenergy/strategic_themes/climate_change/focus_areas/sub-national_initiatives/ accessed on 28 November 2014

[2] Oliveira J P, 'The Implementation of Climate Change Related Policies at The Sub-National Level: An Analysis of Three Countries' (2009) 33 Habitat International 253

[3] Peel J et al, 'Climate Change Law in an Era of Multi-Level Governance' (2012) 1 Transnational Environmental Law 245

[4] *Ibid*

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emissions is minimal and consequently does not have international emission reduction obligations.

However, Kenya's population is among the most vulnerable to the impacts of climate change. The country has experienced droughts, floods, forest fires and increased sea level at the coast. This has a direct impact on the devolved sectors such as agriculture and health. Despite the vulnerability, the country does not have a climate change specific law except for the Climate Change Response Strategy and Climate Change Action Plan, which are merely plans and not binding.

The Kenyan Constitution has a provision on environment and the closest to climate change is a sub-article which mandates the state to achieve and maintain a forest cover of at least 10%. However, there are sectorial legislations that have an aspect of climate change even though that is not their main focus. Counties should therefore be willing to tackle climate change "as they are closer to where the consequences of climate change will happen"[5] and have responsibilities over sectors that impact and are impacted by climate change.

To be able to tackle climate change at the county level, Kenya has a lot to learn from countries where sub-nationals have been on the forefront tackling climate change. The paper discusses the role of sub-nationals in tackling climate change. It will look at how different jurisdictions have tackled climate change at sub-national level and how Kenya can draw lessons from their experiences. The first part examines climate change governance at the sub-national level, looking at the arguments for and against. Secondly, it provides case studies from the US (State of California) and Brazil (State of Sao Paulo). It will discuss how these states have been able to tackle climate change, the challenges and how they have overcome them.

Thirdly, it examines climate change governance in Kenya and how the Kenyan counties can draw lessons from the experiences of the above states. The paper does not suggest that since a system has worked in California and Sao Paulo, then Kenyan counties should adopt the same. To the contrary, this may not work and what it intends to do is to draw lessons from the experiences and tailor them to suit the Kenyan context.

2. SUBNATIONAL GOVERNMENTS AND CLIMATE CHANGE GOVERNACE

Interestingly, the first government to ever set up an emission reduction target, even before Kyoto Protocol came into existence, was a sub-national government – the city of Toronto.[6] In 1990, the Toronto city council passed a resolution to reduce its carbon dioxide (CO_2) emissions by 20% below the 1998 levels by 2005.[7] Several sub-national governments have followed suit and it is estimated that as at 2003, over 560 cities and counties worldwide had set up GHG emission reduction targets while others had developed local

[5] *Ibid*

[6] C Kousky and S H Schneider, 'Global Climate Policy: Will Cities Lead the Way?' (2003) 3 Climate Policy 359

[7] L D D Harvey, 'Tacking Urban CO2 Emissions in Toronto' (1993) 35(7) Environment 16

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action plans to reduce their emissions.[8] They also influence policies at the international level, such as Sao Paulo's proposal to increase global renewable target that was taken up by the World Summit for Sustainable Development (WSSD)[9].

Their role in climate change governance cannot therefore be overlooked. In fact, this paper argues that climate change governance at the sub-national level supplemented by national government action can be more effective than at the national and international level. Sub-national governments usually have the responsibility of developing and/or implementing policies, legislations, strategies and programs in sectors that directly impact and impacted by climate change. In addition, they make investment decisions that directly affect GHG emissions.[10] The United Nations Development Program estimated that up to 80% of mitigation policies and 100% of adaptation policies are implemented at sub-national level.[11] This shows how relevant the sub-national governments are to climate change governance.

The other reason to engage sub-nationals is their flexibility in implementing policies due to less bureaucracy. Decisions at this level are taken faster and they can easily adopt new structures as opposed to policy implementation at the national level.[12]

In addition, the policies adopted by these regions are usually tailor made for the specific circumstances (areas and needs). They are, arguably, more aware of the local needs and stakeholder interest as opposed to the national government[13] since they are closer to their constituents and can easily identify the needs of their constituents.

Sub-national units usually provide a laboratory for policies, testing political response to innovative regulations and policy action.[14] The national governments will usually be influenced by policies that have worked at lower levels.

There are obstacles that sub-national governments face or may face in implementing and developing climate change policies. One of them is lack of autonomy to take certain actions.[15] Their mandate is usually limited, for instance, they may not be able to implement carbon related taxes or subsidies. For instance, if Kenyan counties wished to introduce carbon tax like British Columbia, it would not be possible because of its limited mandate to levy tax.[16]

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[8] *Supra* n6

[9] O Luco and J Goldemberg, 'São Paulo—The "Other" Brazil: Different Pathways on Climate Change for State and Federal Governments' (2010) 19(3) The Journal of Environment and Development 335

[10] The Climate Group, *Subnational Governments at the Forefront of Climate Action* ‹https://seors.unfccc.int/seors/attachments/get_attachment?code=6DTDMM8OJPR1X4Q3ILP6CAZZB3HTGI32› accessed on 24 November 2014

[11] The Climate Group, *Background to Sub-national Governments' Submission to the UNFCCC* http://www.crpm.org/pub/news/158_background-en.pdf accessed on 28 November 2014

[12] *Supra* n2

[13] *Ibid*

[14] N Lutsey, D Sperling, 'America's Bottom-up Climate Change Mitigation Policy' (2008) 36 Energy Policy 673

[15] *Supra* n2

[16] Article 209 of the Constitution of Kenya empowers the county government to levy only 2 taxes – property rates and entertainment tax and any other tax that may be authorized by an Act of Parliament. So far, no other tax has been authorised by Parliament. Any attempt to levy tax not provided for has been declared unconstitutional by the courts.

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In addition, there is usually confusion over which level of government is responsible for climate change governance leading to overlapping roles.

Oliveira argues that there is a possibility of free riding and that sub-nationals are motivated to free-riding in a public good and may not be motivated to implement climate change policies if others do not.[17] Kousky and Schneider however argue that 'free riding' has not prevented action from sub-national governments and that "free riding has been much less of an impediment than theorized."[18]

The other issue may be the economic effect the policies may have on sub-nationals. Where an area has stringent climate change policies, entities and businesses may opt to move to areas with less stringent or without climate policies. Uneven performance by the different sub-nationals can have consequence of encouraging ''shuffling,'' whereby companies redirect their low-carbon products to areas with stringent rules and high-carbon products to areas with weaker or non-existent rules.[19]

Related to uneven distribution is the argument that where a sub-national is taking measures while others do not, the same does not reduce global emissions and is an exercise in futility.[20] This argument is based on the fact that climate change is a global problem and GHG emitted by a specific region is dispersed throughout the globe. Does this mean that no single state should take action and wait until the whole world takes action? Absolutely not. This would increase GHG concentration to dangerous levels. In addition, sub-nationals influence national and international action and provide models for tackling climate change. For instance, in March 2002, Sao Paulo proposed an increase in global renewable energy target from 4% in 2002 to 10% by 2010. The proposal was first tabled by the Brazilian government at a regional Latin American meeting and subsequently introduced at the WSSD in Johannesburg where Johannesburg Renewable Energy Coalition (JREC) was formed to advance use of renewable energy.[21]

The issue arose in the United States Supreme Court in the case of *Massachusetts v. Environmental Protection Agency (EPA)* where it noted that: "Agencies, like legislatures, do not generally resolve massive problems in one fell regulatory swoop. They instead whittle away at them over time, refining their preferred approach as circumstances change and as they develop a more nuanced understanding of how best to proceed."[22] The Supreme Court rejected the EPA's claim that "curtailing motor-vehicle emissions would reflect 'an inefficient, piecemeal approach" to addressing climate change and that the ineffectiveness of a sector-specific intervention served as a valid reason not to regulate greenhouse gas emissions from passenger vehicles.[23]

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[17] *Supra* n2

[18] *Supra* n6

[19] *Supra* n14

[20] M D Nichols , 'California's Climate Change Policies: Lessons for the Nation' (2010) 2 CCLR 154

[21] *Supra* n9

[22] Massachusetts v. EPA, 549U.S.497, 524 (2007)

[23] *Ibid*

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Despite the challenges and arguments against it, sub–nationals continue to take up climate change measures.

3. SUB-NATIONAL CLIMATE CHANGE GOVERNANCE IN BRAZIL AND UNITED STATES

This section focuses on how sub-national units in the US and Brazil have tackled climate change. These countries have been chosen for the case studies because they have a constitutional structure that almost resembles the Kenyan one, emphasizing on strict separation of power. They also have not had international emission reduction obligations.

3.1 Brazil: the State of Sao Paulo

The Brazilian Constitution establishes 27 states and allocates shared responsibilities on environmental issues among the central government, states and municipalities.[24] States and municipalities have been tackling climate change for some time. As at 2012, ten out of the 27 states had already adopted policies with five having draft regulations.[25] One of such states is Sao Paulo.

Sao Paulo is the most populated state in Brazil, with a population of over 41 million people.[26] It contributes to a third of Brazil's Gross Domestic Product (GDP) and is the most developed state in Brazil.[27] While the national government introduced a 10-year energy expansion plan (2008-2017) to increase power generation from fossil fuels,[28] the state of Sao Paulo has taken a different path by proposing to increase power generation from renewable energy.[29] Sao Paulo's energy matrix is composed of more than 50% of renewable energy and one of the objectives of its Climate Change policy is to increase renewable sources within and outside the State.[30]

The São Paulo Climate Change Policy, passed in 2009, sets an economy-wide GHG emissions reduction target of 20% below the 2005 level by 2020.[31] This was quite an ambitious target taken by a state in a country without a national emission reduction target. In addition, Article 31 requires the state to:

[D]efine real, measurable and verifiable tools to reduce its anthropogenic greenhouse gas emissions and for that purpose it will adopt, among others, the following instruments:

I. Targets for the stabilization or reduction of emissions, either individually or jointly with other regions of Brazil and the world.

II. Sectoral efficiency targets, based on the emissions of greenhouse gases verified for each sector, in addition to parameters that allow to identify, in each sector, positive reference patterns;

[24] The Brazilian Constitution 1998, Article 128

[25] S. Aguila and E. Recio, 'Climate Law in Latin American Countries' in E.J Hollo et al (eds) *Climate Change and the Law* (Springer 2012)

[26] Brazil, *Sao Paulo – State*, <http://www.brazil.org.za/sao-paulo.html#.VHmxcGeiWtc> accessed on 27 November 2014

[27] *Ibid*

[28] The 10-year Energy Expansion Plan targets a 15.3 GW thermal generation within the period, with 90% coming from fossil fuel.

[29] *Supra* n21,

[30] São Paulo State Policy on Climate Change (Act 13.798), Article 5

[31] *Ibid*

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III. Additional mechanisms for exchanging obtained rights

The provision mandates the state to set an emission reduction target, which it sets at 20% by 2020 below the 2005 level and targets a sectoral emission reduction. This means that the state and municipalities can take sectorial approach by integrating climate change policies in sectors, which is being done. For instance, the reduction of methane emissions by landfills in Sao Paulo was possible with the integration of climate change policy with the waste management policy.[32] The waste management policy requires new landfills to be built with methane collection tubes.[33]

The climate change policy emphasizes on education, research and development. One of the principles is to encourage knowledge, research, implementation and technologies to promote protection of the environment and education and social awareness regarding global climate change.[34] The state has to set aside resources for education, training and social awareness.[35] Education and capacity building is a theme that runs throughout the policy. This shows the importance the state attaches to sensitization, innovation and capacity building. The state has launched a program for climate research to stimulate research, make the link between emissions from human activity and from natural causes.[36] The education has sparked public participation on climate related issues and all policies are taken through public hearings and legislative approval before being enacted.

The policy also promotes economic instruments in mitigation and adaptation. These include financial credits, tax incentives, charging for activities that emit GHGs, economic incentives for maintaining existing forests and where deforestation is avoided, compensation for voluntary tree-planting and Clean Development Mechanism (CDM).

CDM has been one of the most successful economic instruments to mitigate and raise revenues. The city of Sao Paulo has developed initiatives using CDM, such as the Bandeirantes Landfill Gas to Energy Project (BLFGE), implemented by the City jointly with local private company in co-operation with a German bank and a Dutch private firm.[37] This project alone was estimated to have reduced emissions by 11% by 2010 and the city has raised millions of dollars from carbon credits generated from this project. The revenue raised is used for social projects in the landfill areas and on mitigation actions.[38]

3.2 United States: the State of California

The US has historically refused to take binding emission reduction obligations. While industrialized countries committed to reduce their GHG emissions under KP, the US rejected binding obligations, receiving backlash from the rest of the world. In addition, the Bush administration prioritized energy policy of "next-generation fossil fuel and nuclear

[32] *Supra* n2

[33] *Supra* n30

[34] *Supra* n30, Articles 3 and 5

[35] *Ibid*, Article 6

[36] The State Of São Paulo Research Foundation, *Contributions to Research In São Paulo State, Brazil, Into Knowledge On Climate Change (1992-2008)* <http://www.fapesp.br/publicacoes/clima_eng.pdf> accessed on 27 November 2014

[37] OECD (2010), *Cities and Climate Change*, (OECD Publishing, 2010)

[38] Ibid

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energy technologies over renewable".[39] This has created the perception that US is not taking substantial measures and is uninterested in tackling climate change. This perception fails to take into account the measures taken by states, cities and regional partnerships within the country.[40] These sub-nationals have taken bold and innovative measures, filling in the vacuum left by the federal government. One of such is the state of California.

The state of California has experienced serious impacts of climate change, considering that it is located at the coast. It has experienced rise in the sea level, eroding coastal communities and threatening infrastructure; less water in spring and summer due to precipitation falls as rain instead of snow in winter and more severe and prolonged wildfire.[41] California has recognized the threat and responded quickly.

California boasts of consistent climate leadership at the public and private sectors.[42]This has encouraged both public and private involvement in developing and adopting climate change policies. Its efforts to tackle climate change began in the 1980s with Sher's 1988 legislation creating an emissions inventory and a report on global warming impacts.[43] This was followed by a series of research on the sources and impacts of climate change to assist in adopting the relevant policies which led to enactment of Senate Bill 1771 establishing Climate Action registry, a non-profit organization responsible for developing a process to provide technical assistance and advice in monitoring greenhouse gas emissions, to set greenhouse gas (GHG) emissions baselines in coordination with CEC, to enable entities to voluntarily record their annual GHG emissions inventories.[44]

Thereafter, a series of legislative, administrative and executive action such as the Assembly Bill 1943 which requires the California Air Resource Board (CARB) in consultation with the registry, to adopt procedures for reporting and certification of emission reduction from mobile sources and to set an emission standard for public vehicles.[45] Subsequently, in 2005 the then governor issued an Executive Order establishing statewide emission reduction targets and creating the Climate Action Team to coordinate climate change strategies.[46]

In 2006, California Global Warming Solutions Act was enacted, setting an ambitious economy-wide emission reduction target of 1990 level by 2020.[47] The first step was to set up GHG emissions inventory by examining sources by sectors[48] to be able to assess the total reduction required. This led to the requirement of mandatory reporting for various sources.[49]

In addition to the mandatory reporting requirement, the state has come up with measures to reach the target. The measures include Low Carbon Fuel

[39] Byrne et. al, 'American Policy Conflict in the Greenhouse: Divergent Trends in Federal,
Regional, State, and Local Green Energy and Climate Change Policy' (2007) 35 Energy Policy 4555

[40] *Ibid*

[41] Supra n20

[42] Ibid

[43] Ibid

[44] State of California, *California Climate Change Legislation* ‹http://www.climatechange.ca.gov/state/legislation.html› accessed on 28 November 2014

[45] *Ibid*

[46] *Supra* n20

[47] *Supra* n44

[48] California Global Warming Solutions Act, 2006

[49] *Ibid*

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Standard, the Clean Car Standard, the Renewable Portfolio Standard, Net Energy Metering, the Californian Solar Initiative, the New Solar Homes Partnership, Emissions Performance Standards and the cap-and-trade scheme.[50]

Cap-and-trade was launched in 2012 and covers entities emitting over 25,000 tons of CO_2 annually. When it was launched, it covered around 360 entities within California and 85% of the state's emissions.[51]The entities are required to use the proceeds on alternative or renewable fuels or by giving reliefs to customers.[52] The state on the other hand is required to invest the revenue raised from auctioning allowances in local projects. CARB is open to linking the Californian cap-and-trade with those of other jurisdictions. California is part of Western Climate Initiative which includes British Columbia, Manitoba, Ontario and Quebec who are working together towards a linked cap-and-trade scheme. As at January 2014, the program was linked to the Quebec one.

California has faced challenges in implementing cap-and-trade scheme, especially in terms of law suits. In *Association of Irritated Residents (AIR) vs CARB*[53], AIR sued CARB claiming cap and trade was not fully justified as a policy decision and that CARB recommended implementing a cap-and-trade program to limit industrial emission without considering the feasibility and cost-effectiveness of alternative direct control measures. The court held that CARB 's plan designed to reduce GHG emissions to 1990 levels by 2020 complies with the state's Global Warming Solutions Act and approved CARB's approach.

In November 2013, just before California's first allowance auction, the California Chamber of Commerce filed a lawsuit alleging that Global Warming Solutions Act did not give CARB authority to raise revenue from allowance auctions, and that all allowances must therefore be freely allocated. Alternatively, the Chamber of Commerce argued that if the Act granted this authority, it would constitute a tax, which requires approval from two-thirds of the legislature and the Act did not receive two-thirds approval.[54] The court rejected this argument and upheld CARB's authority to auction allowances.

This shows the challenges sub-national governments continue to face in adopting and implementing climate change policies.

4 KENYA'S CLIMATE CHANGE GOVERNANCE AT THE COUNTY LEVEL

4.1 Constitutional Structure

The Kenyan Constitution, promulgated in August 2010, provides for a devolved system, establishing 47 counties.[55] The devolved structure came into force in March 2013, after the first general election under the Constitution.[56] The Fourth Schedule sets out the national government functions, the county

[50] *Supra* n3

[51] Centre for Climate and Energy Solutions, *California Cap-and-trade* ‹http://www.c2es.org/us-states-regions/key-legislation/california-cap-trade accessed› on 28 November 2014

[52] *Ibid*

[53] AIR v CARB 42 ELR 20127

[54] California Chamber of Commerce v. CARB 43ELR 20249

[55] Constitution of Kenya, 2010

[56] *Ibid*, Section 2(2) Sixth Schedule

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government function and concurrent functions conferred on both levels of government.

According to Part 2 of the Fourth Schedule, the following sectors and functions are devolved; agriculture, health, waste disposal and management, control of air pollution and county transport among others.[57] The counties are tasked with implementing specific national government policies on environmental conservation including soil and water conservation and forestry.[58] In addition, they are responsible for ensuring and coordinating participation of communities in governance at the local level.[59]

Climate change governance has not been specifically devolved. Where a function has not been devolved by the Constitution or national legislation, then the function is for the national government.[60] There is currently no legislation assigning climate change governance to counties and a literal interpretation would mean that it is left to the national government. However, the counties can, in addition to implementing national climate change policies, develop climate change policies within the devolved sectors. In addition, they can include adaptation and mitigation plans in their County Development Plans.

4.2 Climate Change Governance

Kenya does not have a specific policy or legislation directly dealing with climate change. The climate change legal framework is sectorial and fragmented, with different sectors containing their own legislation and climate change related measures within the different sectorial legislation. There are currently various sectorial laws and policies that affect certain aspects of climate change law, even though their main focus is not climate change. They include Forests Act, Water Act, Environmental Management and Coordination Act, Energy Policy, Forestry Policy and Feed-In Tariffs Policy among others.

Kenya has developed a Climate Change Response Strategy (NCCRS) and Climate Change action Plan, which are not binding and neither are they policy documents. The objective of the NCCRS is to respond to the challenges and opportunities posed by climate change. It recommends assessment of evidence, vulnerability and impacts of climate change, a robust adaptation and mitigation, an understanding of climate change and its impacts nationally and in local regions, capacity building, research and development, legal and institutional framework, and an action plan coupled with resource mobilisation and robust monitoring and evaluation plan.[61] The Climate change Plan is a plan on how to implement the NCCRS.

In response to the policy and legislative need, Climate Change Bill is being debated in Parliament. Intention of the Bill is to extensively deal with climate change by regulating adaptation and mitigation measures. It also introduces an institution, the Climate Change Council, to be the body to coordinate climate change measures and implement the Bill.[62] It was first introduced in Parliament in 2012 but was not passed due to lack of public participation. It was thereafter amended and reintroduced in Parliament.

[57] *Ibid*, Part 2, Fourth Schedule

[58] *Ibid*

[59] *Ibid*

[60] *Ibid*, Article 186(3)

[61] Kenyan National Climate Change Response Strategy

[62] Climate Change Bill 2014, Kenya

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4.3 Lessons for Kenyan Counties

Climate change is an issue that has not been taken up by Kenyan counties. This could be because they were recently formed and are still grappling with understanding their constitutional mandate and development needs. The counties can tackle climate change by implementing national policies or adopting policies in line with their constitutional mandate.

The main lesson counties can learn from the case studies is integrating climate change related policies with other sectorial policies/legislation. It has been argued that the success of implementing climate related policies in to integrate them with other policies.[63] For instance, in Sao Paulo, methane emission reduction by landfills was incorporated in the waste management policy which required new landfills to be built with methane collection tubes.[64] The counties can therefore integrate climate change policies into devolved sectors such as agriculture and waste management. This will however require innovation in sectorial policy making.

One way to promote innovation is to promote education, research and development. The state of Sao Paulo has set aside considerable amount of resources for education, research and development and this should be the emulated. For Sao Paulo, this is entrenched in law which mandates the state to set aside resources.[65] Education and research is important because it will assist counties establish the policy needs based on emissions source and impact. In addition, there is need for sensitization to promote public participation on climate related issues at the local level. Public participation is a requirement for county governance and there cannot be meaningful public participation from an uninformed society.

There is need for consistent climate leadership and political will. The Californian climate governance has been successful because of consistent leadership. It began with legislator Sher's 1988 legislation to create an emissions inventory to various legislations by different leaders and Governors executive orders such as Governor Schwarzenegger's 2005 Executive Order establishing the Climate Action Team,[66] among others. The Kenyan governors, senators, county executives and private sector should take the lead by suggesting and adopting climate related policies. A strong leadership will encourage government, business and individual citizens to develop and implement solutions.

Economic instruments also provide mitigation and revenue raising opportunity. However, this have to be carefully selected based on their constitutional and legal mandate and viability. For instance, an instrument like carbon tax cannot work for a Kenyan situation because counties can only levy property and entertainment tax[67] and any attempt to levy carbon tax will be unconstitutional. They may however be innovative by providing subsidies on property rates to owners who develop and maintain a forest cover and compensate for voluntary tree-planting. This will provide an incentive for maintaining forest cover thereby mitigating climate change.

The other instrument that has been well structured in Sao Paulo and could be emulated is the CDM. The

[63] *Supra* n2

[64] *Ibid*

[65] *Supra* n30

[66] *Supra* n20

[67] *Supra* n16

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counties can set up CDM initiatives or partner with private entities to do so. In addition, it can also encourage development of CDM projects within their area by providing incentives. The city of Sao Paulo developed a successful CDM initiative by partnering with private entities and a funding institution.[68] The revenues raised from these projects should be injected to local projects.

Adequately responding to climate change requires coordination between national and county governments and amongst the county governments. In order to avoid an economic disadvantage to counties intending to adopt climate related policies, it would be relevant for coordination among counties. This would avoid a situation where emitting businesses move to other counties with less stringent laws.

5 CONCLUSION

Sub-nationals play an important role in tackling climate change. Other than implementing and adopting climate change policies at their level, they influence policies at national and international level such as Sao Paulo which influenced the renewable energy global target. They also provide a laboratory for implementing innovative climate change policy.

The Kenyan county governments should not shy away from tackling climate change. It may pose challenges in the beginning, considering that it is something new for the counties and the national government has not pushed the agenda so much. They will need carefully crafted policies based on extensive research. In addition, they will need innovation in policy formulation. The county governments therefore need to draw lessons from the various jurisdictions where sub-nationals have taken climate change measures. This should not be limited to the case studies above but should on wide consultation from a range of jurisdictions.

[68] *Supra* n39

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